DEPARTMENT OF MECHANICAL ENGINEERING, SVCE & ICT JOINTLY ORGANIZED

THREE DAYS TRAINING PROGRAM ON FUSION 360

on

26.09.2022, 04.11.2022, & 22.02.2023.

Coordinators

Mr. M Maheswaran

Mr. G Kirubakaran

Mr. A Ranjith Raj

Dr. S. RAMESH BABU, M.E., Ph.D
Professor & Head
Department of Mechanical Engineering
Sri Venkateswara College of Engineering
Pennalur, Sriperumbudur (TK) - 602117.
Tamilnadu, INDIA.

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Day 1 (September 26, 2022):

The inaugural day of the 3-day program marked an exciting beginning as **Mrs. Kalyani and Ms. Nowseeth, distinguished trainers from ICTACT Academy**, took the stage. Their extensive experience in Autodesk Fusion 360 software and their passion for imparting knowledge set a dynamic tone for the program.

The training session on Day 1 focused on introducing the participants, third-year Mechanical Engineering students, to the fundamental commands and tools within Autodesk Fusion 360. The trainers guided students through the software's user interface, demonstrating essential techniques for creating 3D models.

The curriculum included:

Software Orientation:

Participants were acquainted with the Fusion 360 interface, understanding the various menus, toolbars, and panels.

Basic Modeling:

Hands-on exercises allowed students to practice creating basic 3D shapes, manipulating dimensions, and mastering essential modeling techniques.

Sketching:

The trainers introduced the concept of sketches as a foundation for creating 3D models. Students learned how to create sketches, apply dimensions, and extrude them into 3D shapes.

Interactive Learning:

The session encouraged active participation, with students following along on their own computers. Questions were welcomed, fostering a collaborative and engaging learning environment.

Attendance and Photographs:

Attendance records and photographs were meticulously maintained, capturing the enthusiastic participation of students throughout the day.

Sri Venkateswara College of Engineering

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Department of Mechanical Engineering

ICT Design Now Fusion 360 CAM Challenge

(AY 2022-2023) 26/09/2022

S.N	REG.NO	NAME OF THE STUDENT	FORE NOON	AFTERNOON
			Signature	Signature
1	2127201001001	AATHEESHWAR G		
2	2127201001002	ABISHEK G		
3	2127201001003	ADITYA RAJARATHNAM		
4	2127201001004	AKASH R		
5	2127201001005	ANEESH VARMAN S		
6	2127201001006	ANTON JEROME A		
7	2127201001007	ANUSHYANTH A		
8	2127201001010	BHARATH PUGHAZHENDHI		
9	2127201001011	BOOBALAN G		
10	2127201001012	CHARAN.P	P. Charan	P. Charan
11	2127201001014	DARSHAN ARUNACHALA J		
12	2127201001015	DILLIRAJAN K		
13	2127201001016	GIRI R		
14	2127201001017	GOKUL KRISHNAN A		
15	2127201001020	HARI GOWTHAM R		
16	2127201001021	HARIHARASUDAN R		
17	2127201001022	HARSHA VARDHAN J		
18	2127201001024	JAYASHREE.M	AB	AB
19	2127201001027	JUSTIN KIRAN KUMAR S		
20	2127201001028	KALYAN M S		
21	2127201001029	KAUSHIGARAJAN U.K		
22	2127201001030	KAVIARASU. M	AB	AB
23	2127201001031	KEERTHIVARMAN A		
24	2127201001032	KIRRAN GOUTAM J B		

187 D. ASHWIN mechanical 3rd

S.N	REG.NO	NAME OF THE STUDENT	FORE NOON	AFTERNOON
			Signature	Signature
25	2127201001033	KISHORE S	S. Kishwar.	S. Kishwar.
26	2127201001034	LOHESH M V	Lohesh	Lohesh
27	2127201001035	MANU RAGHAV	Manu	Manu
28	2127201001035	LOKESH A	Lokesh	Lokesh
29	2127201001036	MAGESH RAM R	Magesh ram	Magesh ram
30	2127201001037	MANIKANDAN J	J. Mani	J. Mani
31	2127201001038	MANOJ KUMAR S	Manoj	Manoj
32	2127201001040	MEER THAHIR A.A	Meer	AB
33	2127201001041	MELVIN ROSOAARIO A	AB	AB
34	2127201001044	MONISH. V	AB	AB
35	2127201001046	MUTHU SELVAM N	AB	AB
36	2127201001047	PALANIVEL . G	Palani	Palani
37	2127201001048	PARTHAASARATHY B	Partharasarathy. B	Partharasarathy. B
38	2127201001049	PASUPATHY.M.M	M. M. Pasupathy	M. M. Pasupathy
39	2127201001050	PRADEEP.B.K	AB	AB
40	2127201001051	PRADEP SREENIVASAN R	R. Pradeep	R. Pradeep
41	2127201001052	RAAGHAV V		
42	2127201001053	RAHUL ARAVIND P	P. Rahul	P. Rahul
43	2127201001055	RAMESH ARAVIND J M	J. M. Ramesh	J. M. Ramesh
44	2127201001057	RAVIRAM R	R. Ram	AB R. Ram
45	2127201001060	SACHITHANANTHAN J	J. Sachi	J. Sachi
46	2127201001061	SAI SURYA S	Sai Surya S	Sai Surya S
47	2127201001064	SANJAY KUMAR S	S. Sanjay Kumar	AB
48	2127201001066	SHASHANG G	G. Shashang	G. Shashang
49	2127201001072	SURYA PRAKASH B	Surya	Surya
50	2127201001073	SYLENDRA FRABANJAN S	Sylendra	Sylendra
51	2127201001074	THARUN.M.S.K	M. S. K. Tharun	M. S. K. Tharun
52	2127201001077	VARADHARAJAN C N	C. N. Varadharajan	C. N. Varadharajan
53	2127201001078	VASANTH K	Vasanth	Vasanth
54	2127201001079	VIGNESH D	D. Vignesh	D. Vignesh
55	2127201001080	VINISH U	Vinish	Vinish
56	2127201001081	VISHAL BALAJI J	J. Vishal Balaji	J. Vishal Balaji
57	2127201001301	ASHWIN.D	D. Ashwin	D. Ashwin
58	2127201001302	BARATHN	Barath. N	Barath. N
59	2127201001306	MANIKANDAN.R	R. Manikandan	R. Manikandan
60	2127201001308	MOHAMMED AASHIQ A	Aashiq	Aashiq

S.No	Reg.No	Name	Fore Noon	Afternoon
			Signature	Signature
61	2127201001309	PAVITHRAN T	T-Pavi	T-Pavi
62	2127201001310	PERUNDEVAN S		
63	2127201001314	A.RAJESHKUMAR	A.Rajeshkumar.	A.Rajeshkumar.
64	2127201001315	SHARMA.V	V.Sharma	V.Sharma
65	2127201001317	SRIMANO S		
66	2127201001318	SRIRAM.S.S	S.S.S	S.S.S
67	2127201001319	STEPHEN RAJ D		
68	212720100 1038	MANOJ KUMAR.S		
69	212720100101 8	GOKULA KRISHNAN R	T.Methi	T.Methi
70	212720100 1042	METHILON.T	B.Jayaraman	B.Jayaraman
71	212720100102 5	JEYARAMAN. B		
72	212720100023	JAGAN KUMAR. M		
73				
74				
75				

INSTRUCTOR'S

Nowsheeba ICT-Trainer

Kotha Kalyani – Domain Expert

COORDINATOR'S

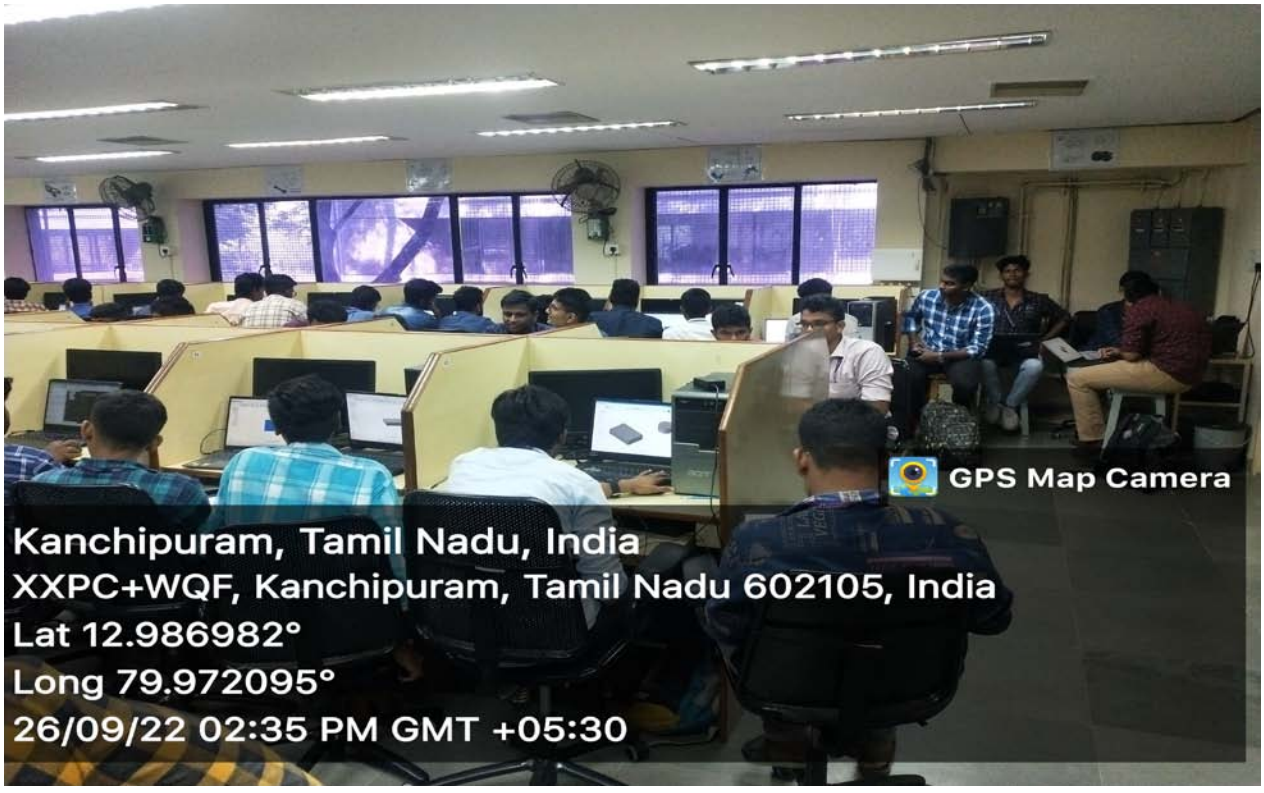
26.09.22

[Dr. Kirubakaran, ADIMEC, SVCE]

[A. Ranjith Ros / AP / MECH]

[M. MAHESWARAN, AP/ME]

DAY-1 PHOTOS 26.09.2022



Day 2 (November 4, 2022):

The second day of the training program continued to build upon the foundation laid on Day 1. This time, **Trainer Devika Prasanth assumed the role of guiding the participants** through more advanced aspects of Autodesk Fusion 360.

Day 2's curriculum included:

Advanced Tools:

With a solid grasp of the basics, students dived into more intricate commands and tools that Fusion 360 offered. This included advanced modeling techniques, parametric designs, and complex shapes.

Assembly Modeling:

Participants learned the art of assembling multiple components to create complex mechanisms. This involved understanding constraints, joints, and relationships between various parts.

Visualization:

The session introduced rendering techniques, enabling students to create realistic visualizations of their 3D models. This brought a new dimension to their designs by simulating real-world lighting and materials.

Interactive Workshops:

Practical workshops and hands-on exercises allowed students to apply the newly acquired skills in a creative and exploratory manner.

Attendance and Photographs: As with the previous day, attendance was meticulously tracked, and photographs showcased the students' engrossed participation.

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Department of Mechanical Engineering

ICT Design Now Fusion 360 CAM Challenge

(AY 2022-2023)

DAY – II Program on 04-11-2022

Attendance Sheet

S.No	Reg.No	Name	ICT ID	FORENOON Signature	AFTERNOON Signature
1	2127201001001	AATHEESHWAR G	1DW23SVCE18	G. Aathreshwar	G. Aathreshwar
2	2127201001002	ABISHEK G	1DW23SVCE19		
3	2127201001003	ADITYA RAJARATHNAM		A	A
4	2127201001004	AKASH R		A	A
5	2127201001005	ANEESH VARMAN S		A	A
6	2127201001006	ANTON JEROME A	1DW23SVCE01	A. Jerom	A. Jerom
7	2127201001007	ANUSHYANTH A	1DW23SVCE		
8	2127201001010	BHARATH P		A	A
9	2127201001011	BOOBALAN G	1DW23SVCE54	G. Boobalan	G. Boobalan
10	2127201001012	CHARAN P		A	A
11	2127201001014	DARSHAN ARUNACHALA J		A	A
12	2127201001015	DILLIRAJAN K	1DW23SVCE22	K. Dilli	K. Dilli
13	2127201001016	GIRI R	1DW23SVCE42	R. Giri	R. Giri
14	2127201001017	GOKUL KRISHNAN A		A	A
15	2127201001018	GOKULAKRISHNAN R	1DW23SVCE88	Gokula Krishnan R	Gokula Krishnan R
16	2127201001020	HARI GOWTHAM R	1DW23SVCE39	Hari Gowtham	Hari Gowtham
17	2127201001021	HARIHARA SUDAN R	1DW23SVCE86	Hari	Hari
18	2127201001022	HARSHA VARDHAN J	1DW23SVCE52		
19	2127201001023	JEGAN KUMAR M		A	A
20	2127201001024	JAYASHREE M		A	A
21	2127201001025	JEYARAMAN B	1DW23SVCE89	B. Jeyaram	B. Jeyaram
22	2127201001027	JUSTIN KIRAN KUMAR S	1DW23SVCE62	S. Just. Kiran Kumar	S. Just. Kiran Kumar
23	2127201001028	KALYAN M S		A	A

24	2127201001029	KAUSHIGARAJAN U K	IDCW23SVCE65		
25	2127201001030	KAVIARASU M		A	A
26	2127201001031	KEERTHIVARMAN A	IDW23SVCE42		
27	2127201001032	KIRRAN GOUTAM J B		A	A
28	2127201001033	KISHORE S	IDW23SVCE24		
29	2127201001034	LOHESH M V		A	A
30	2127201001035	LOKESH A		A	A
31	2127201001036	MAGESH RAM R		A	A
32	2127201001037	MANIKANDAN J	IDW23SVCE15		
33	2127201001038	MANOJ KUMAR S	IDW23SVCE85		
34	2127201001039	MANU RAGHAV	IDW23SVCE35		
35	2127201001040	MEER THAHIR A A	IDW23SVCE70		
36	2127201001041	MELVIN ROSOAARIO A		A	A
37	2127201001042	METHUN T	IDW23SVCE91		
38	2127201001044	MONISH V	IDW23SVCE12		
39	2127201001046	MUTHU SELVAM N		A	A
40	2127201001047	PALANIVEL G		A	A
41	2127201001048	PARTHAASARATHY B	IDW23SVCE14		
42	2127201001049	PASUPATHY M M		A	A
43	2127201001050	PRADEEP B K		A	A
44	2127201001051	PRADEP SREENIVASAN R	IDW23SVCE53		
45	2127201001052	RAAGHAV V		A	A
46	2127201001053	RAHUL ARAVIND P	IDW23SVCE19		
47	2127201001055	RAMESH ARAVIND J M	IDW23SVCE41		
48	2127201001057	RAVIRAM R	IDW23SVCE16		
49	2127201001060	SACHITHANANTHAN J	IDW23SVCE59		
50	2127201001061	SAI SURYA S	IDW23SVCE05		
51	2127201001064	SANJAY KUMAR S		A	A
52	2127201001066	SHASHANG G	IDW23SVCE31		
53	2127201001072	SURYA PRAKASH B	IDW23SVCE30		A
54	2127201001073	SYLENDRA FRABANJAN S	IDW23SVCE39		
55	2127201001074	THARUN M S K	IDW23SVCE17		
56	2127201001077	VARADHARAJAN C N	IDW23SVCE57		
57	2127201001078	VASANTH K	IDW23SVCE50		
58	2127201001079	VIGNESH D	IDW23SVCE27		
59	2127201001080	VINISH U		A	A
60	2127201001081	VISHAL BALAJI J	IDW23SVCE20		
61	2127201001301	ASHWIN D	IDW23SVCE47		

62	2127201001302	BARATH N	IDW23SVCE67	Barath. N	Barath. N
63	2127201001306	MANIKANDAN R		(A)	(A)
64	2127201001308	MOHAMMED AASHIQ A	IDW23SVCE23	Aashiq	Aashiq
65	2127201001309	PAVITHRAN T	IDW23SVCE72	T.Pavi	T.Pavi
66	2127201001310	PERUNDEVAN S	IDW23SVCE73	S.Perundevan	S.Perundevan
67	2127201001314	RAJESHKUMAR A	IDW23SVCE91	A. RAJESHkuma.	A. RAJESHKUMAR
68	2127201001315	SHARMA V	IDW23SVCE83	V. Sha	V. Sha
69	2127201001317	SRI MANO S	IDW23SVCE77		
70	2127201001318	SRIRAM S S	IDW23SVCE68	S.S.Sr	S.S.Sr
71	2127201001319	STEPHEN RAJ D	IDW23SVCE78	D. Ste.	D. Ste.
72					
73					
74					
75					
76					
77					
78					

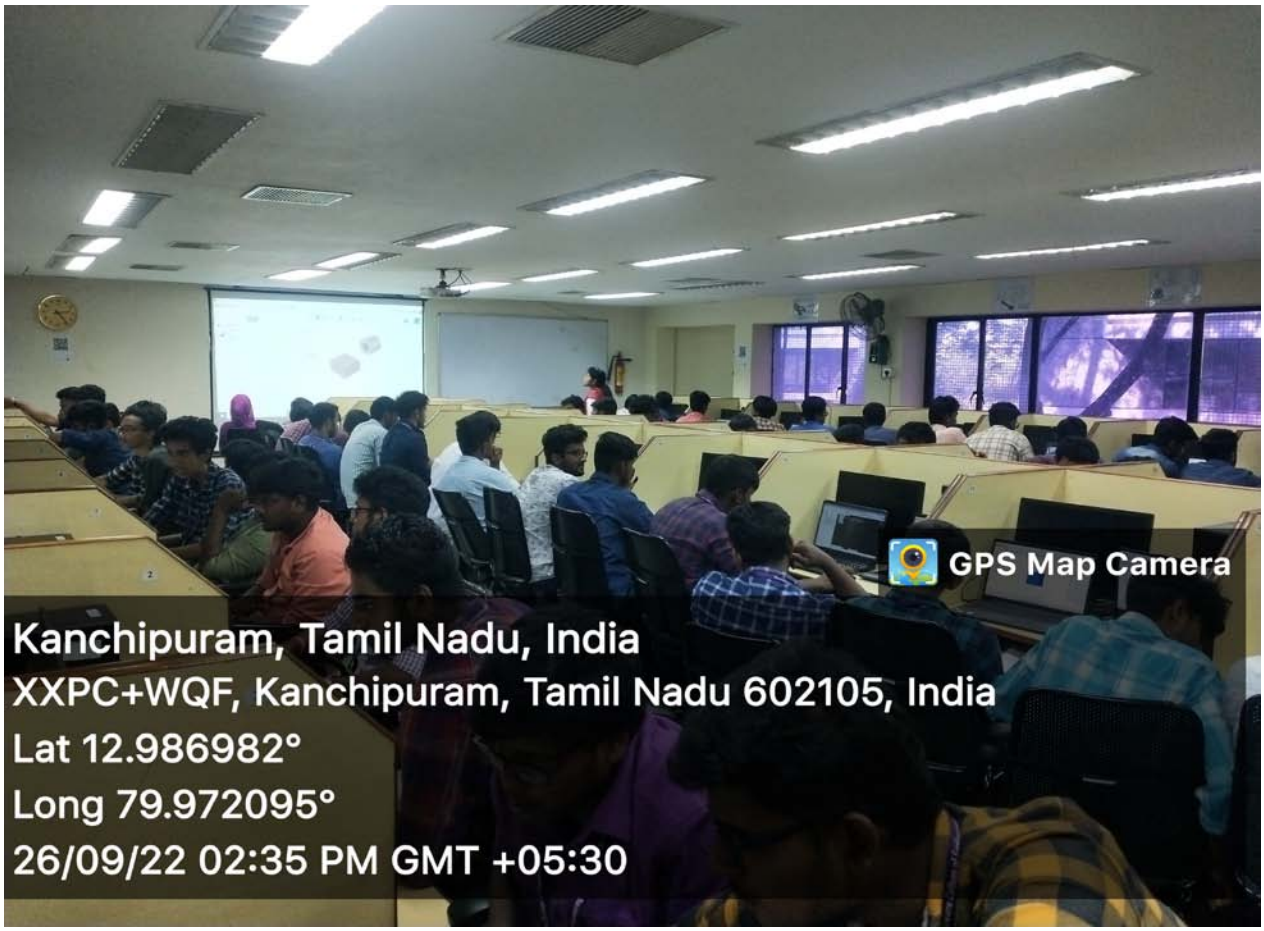
1. M. M. (M. MAHESWARAN, AP/MR)
2. 4.11.22 (Dr. KIRUBAKARAN, AP/MEC)
3. 4/11/22 [A. RANJITH RAJ]

ICT Instructor

(S.R. DEVIYAPRASANTH)

Co-ordinators


GPS Map Camera
Kanchipuram, Tamil Nadu, India
XXPC+WQF, Kanchipuram, Tamil Nadu 602105, India
Lat 12.986982°
Long 79.972095°
26/09/22 11:51 AM GMT +05:30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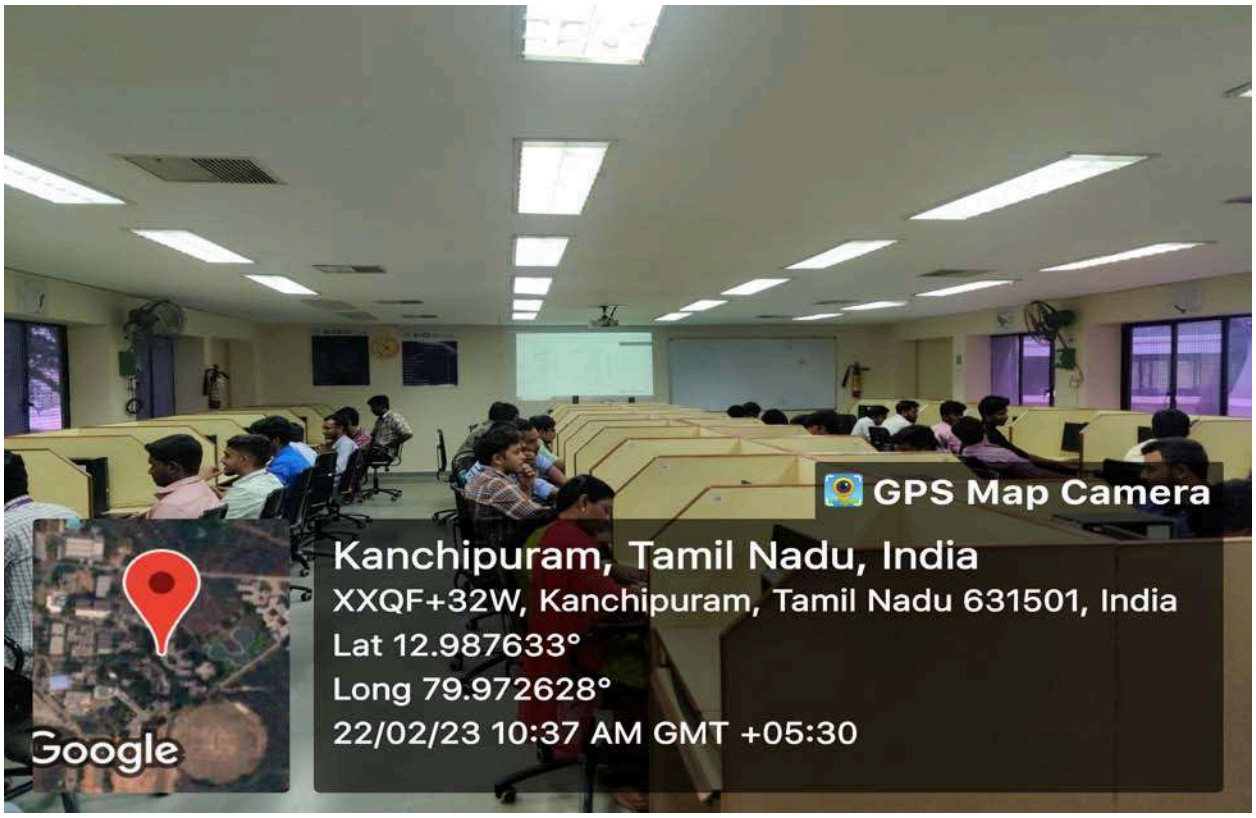
Kanchipuram, Tamil Nadu, India
XXPC+WQF, Kanchipuram, Tamil Nadu 602105, India
Lat 12.986982°
Long 79.972095°
26/09/22 02:35 PM GMT +05:30

DAY-2 PHOTOS 22.11.2022

DAY-3 PHOTOS 23.02.2023



Day 3 (Online Session):

The final day of the program adopted a virtual format, utilizing the power of modern communication tools. Through a Webex session accessible via the link **"https://netacad.webex.com/netacad/j.php?MTID=m02e902be471128a4e1363902f72fab3e,"** students experienced a blend of convenience and learning continuity.

Advanced Commands:

Expert trainers led participants through advanced commands, further enriching their toolkit within Fusion 360. This included intricate modeling techniques, parametric adjustments, and fine-tuning designs.

Competition Instructions:

As the culmination of the program approached, participants received comprehensive instructions on how to register for the "Design Now Competition 2023." This step was crucial to ensure their preparedness for the upcoming challenge.

Interactive Q&A:

The virtual setting facilitated interactive question and answer sessions, where students could seek clarification and delve deeper into specific topics.

Focused Learning:

Without the distractions of a physical classroom, participants could immerse themselves in the intricacies of advanced software commands and competition details. Seamless Integration: The transition to an online platform demonstrated the adaptability of the program to different learning environments. The culmination of the three-day program left students equipped with not only a solid grasp of Autodesk Fusion 360 software but also a sense of confidence in their ability to take on the challenges of the upcoming Design Now Competition 2023. The combination of hands-on training, expert guidance, interactive learning, and seamless integration of virtual tools showcased the program's commitment to nurturing the students' design skills and preparing them for real-world engineering challenges.

Competition Problem Statement:

Upon completing the 3-day training, the problem statement for the "Design Now Competition 2023" was released. The problem statement revolved around "Innovation in Furniture Items," requiring participants to design a portable furniture item that optimally utilizes space.

Submission Criteria:

Participants were required to submit the following files as part of their competition entry:

- Fusion project public link (with download option enabled and timeline history captured)
- Rendered images of the final product in a PowerPoint presentation
- Relevant reference links included in the PowerPoint presentation
- A concise PowerPoint presentation (5-7 slides) explaining the design project. The PPT was uploaded to the project folder.
- Inclusion of Design Public URL and PPT Public URL in the Design Now Project submission form.

Judging Criteria:

The submitted designs were evaluated based on the following parameters:

- Design Objective: 15%
- Design Process: 15%
- Creativity and Novelty of Design: 25%
- Autodesk Software Usage (Technology, Impact, User Experience, Presentation): 25%

Report: 3-Day Program for IIIrd Year Mechanical Engineering Students

Program Overview:

A 3-day program was conducted for the students of the third year in the Mechanical Engineering department at Sri Venkateswara College of Engineering. The program aimed to prepare students for the National Level Competition, "Design Now Competition 2023." The competition focused on enhancing students' design skills using Autodesk Fusion 360 software. The program consisted of training sessions, expert guidance, and practical assignments.

Faculty Training:

In preparation for the upcoming "Design Now Competition 2023," a crucial phase of the program involved the training of faculty members to guide and mentor the participating students effectively. The Mechanical Engineering department's commitment to ensuring the students' success was evident through the selection of three dedicated faculty members: Mr M Maheswaran, Mr G Kirubakaran, Mr A Ranjith Raj, and. These faculty members were identified by the department's Head of Department (HOD) to undergo specialized training in Autodesk Fusion 360 software.

From August 1st to August 5th, 2022, these three faculty members embarked on a comprehensive 5-day training program hosted at Sri Sairam Engineering College. This program, specifically tailored for educators, aimed to equip them with advanced proficiency in using Autodesk Fusion 360 software. During this period, the faculty members immersed themselves in hands-on sessions, lectures, and workshops conducted by Fusion 360 experts.

The training encompassed various aspects, including:

Software Familiarization:

Faculty members were introduced to the software's interface, commands, and tools. They gained a foundational understanding of how Fusion 360 operates and its capabilities in the realm of 3D modeling and design.

Advanced Techniques:

The training progressed to cover more intricate features of Fusion 360, enabling the faculty members to delve into advanced modeling, assembly, and visualization techniques.

Real-world Applications:

Practical examples and case studies were explored, showcasing how Fusion 360 is employed in real-world engineering and design projects.

Collaborative Learning:

The faculty members engaged in collaborative activities, exchanging ideas and insights on how best to integrate Fusion 360 training into the students' curriculum.

Certification:

Upon successful completion of the training, the faculty members were awarded certificates, attesting to their newly acquired expertise in Fusion 360.

Armed with the comprehensive training and expertise gained during the 5-day program, Mr M Maheswaran, Mr G Kirubakaran, Mr A Ranjith Raj, emerged as proficient Fusion 360 practitioners. Their dedication to mastering the software underscored their commitment to guiding and mentoring the participating students throughout the upcoming Design Now Competition.

Student Registration and Training:

After the faculty training, third-year students were informed about the training program, and 60 students registered for the Design Now Competition 2023. The students' training was conducted by visiting guest faculty from ICTACT Academy. The internal faculty members Mr M Maheswaran, Mr G Kirubakaran, Mr A Ranjith Raj, provided continuous mentoring and guidance to the participating students.

Training Session:

The core of the program's success lay in the meticulous planning and execution of the training sessions for the third-year Mechanical Engineering students.

These sessions were meticulously designed to empower the students with the essential skills and knowledge required to excel in the Design Now Competition 2023. Each training day was thoughtfully structured to provide a well-rounded learning experience.

ONE PAGE REPORT:

The culmination of the 3-day program for third-year Mechanical Engineering students was not only marked by the successful impartation of skills but also by the empowerment of the participants to venture into the world of design and innovation. The program's journey from faculty training to intensive student workshops culminated in a well-rounded experience that showcased the potential of dedicated mentorship and hands-on learning.

As the program concluded, several key takeaways emerged:

Faculty Expertise and Student Empowerment:

The involvement of seasoned faculty members Mr M Maheswaran, Mr G Kirubakaran, Mr A Ranjith Raj, in advanced training amplified the program's impact. Their dedicated learning journey through the Autodesk Fusion 360 software not only equipped them with vital skills but also underscored their commitment to providing top-notch guidance to the students. This transfer of expertise from faculty to students played a pivotal role in boosting students' confidence and proficiency.

Hands-On Learning and Interaction:

The training sessions, thoughtfully structured and conducted by experts, offered a unique blend of theoretical knowledge and practical application. Participants actively engaged in hands-on exercises, transforming abstract concepts into tangible creations. Interactive sessions fostered a collaborative learning environment, enabling students to share insights, seek clarifications, and grow through shared knowledge.

Adaptability to Modern Learning Platforms:

The incorporation of an online session via Webex showcased the program's adaptability to modern educational methodologies. The seamless transition to a virtual environment allowed for continued learning, interactive Q&A, and the impartation of

advanced commands and competition details. This adaptation reflected the program's commitment to leveraging technology for effective education.

PREPARATION FOR DESIGN NOW COMPETITION 2023

The program's ultimate goal was to prepare students for the Design Now Competition 2023. The comprehensive training in Autodesk Fusion 360, covering basic commands to advanced techniques, equipped participants to take on the challenge of designing innovative furniture solutions. With a clear understanding of submission criteria and judging parameters, students were well-prepared to showcase their creativity and technical prowess in the competition.

Nurturing Engineering Talents:

The program's holistic approach aimed not only at enhancing technical skills but also at nurturing the engineering talents within each participant. Through the guidance of faculty mentors, expert trainers, and the immersive learning environment, students were empowered to explore the fusion of creativity and technology, laying the foundation for future endeavors.

In conclusion, the 3-day program for third-year Mechanical Engineering students served as a stepping stone toward excellence. The fusion of faculty expertise, hands-on learning, adaptability to modern platforms, and targeted competition preparation encapsulated the essence of preparing students for real-world challenges. The journey embarked upon within those three days resonates beyond the classroom, reinforcing the participants' journey towards becoming skilled engineers and innovative designers in an ever-evolving world.